

APPENDIX A

PRIMERS DESIGNED FOR DEN-2 CLONING/SEQUENCING PROJECT:

SEQ. ID NO:	PRIMER	MER/SENSE	SEQUENCE
3	pUC/M13-P5	25/+	5'-CCCAGTCAAGACGTTGTAAAACGAC-3'
4	pUC/M13-P5B	27/+	5'-GGATGTGCTGCAAGGCCATTAACTTGG-3'
5	pUC/M13-P3	25/+	5'-TGAGCGGATAACAATTCACACAGG-3'
6	pUC/M13-P3B	27/-	5'-GGCTTTACACTTTATGCTTCCGGCTCG-3'
7	D2-1-Eco.T7 75/+		5'-GCGGATATTG/GAATTC/TCTAGA/ AAATTTAATACGACTCACTATA/ AGTTGTTAGTCTACGTGGACCGACAAGACAG-3' (5'-Pill /EcoRI /XbaI/T7 Promoter/ 5'-end of DEN-2)
8	D2-SMT71	77/+	5'-CCAGT/GAATTC/GAGCTC/ACGGGT/ AAATTTAATACGACTCACTATA/ AGTTGTTAGTCTACGTGGACCGACAAGACAG-3' (5'-Pill/EcoRI/SstI/MluI/T7 Promoter/ 5'-end of DEN-2)
9	D2-1	24/+	5'-AGTTGTTAGTCTACGTGGACCGAC-3'
10	D2-28	34/+	5'-GACAGATTCTTTGAGGGAGCTGAGCTCAACGTAG-3'
11	D2-134	28/+	5'-TCAATATGCTGAAACGGAGAGAAACCG-3'
12	cD2-250	26/-	5'-GGGATTGTTAGGAAACGAAGGAACGC-3'
13	D2-274	32/+	5'-CCACCAACAGCAGGGATACTGAAAAGATGGGG-3'
14	cD2-378	25/-	5'-TGCAGATCTGCGTCTCCTATTCAAG-3'
15	D2-528	25/+	5'-CGTGAACATGTGTACCCCTCATGGCC-3'
16	cD2-616	26/-	5'-TTGCACCAACAGTCAATGTCTTCAGG-3'
17	D2-616	25/+	5'-ACCAGAAGACATAGATTGTTGGTGC-3'
18	cD2-618	25/-	5'-GCACCAACAGTCTATGCTTCTGGC-3'
19	cD2-771	25/-	5'-ATGTTTCCAGGCCCTTCTGATGAC-3'
20	D2-847	25/+	5'-GCAGCAATCCTGGCATAACCATAG-3'
21	D2-996	27/+	5'-GGTTGACATAGTCTTAGAACATGGAAG-3'
22	cD2-996	27/-	5'-CTTCCATGTTCTAAGACTATGTCAACC-3'

SEQ. ID	PRIMER	MRQ/SENSE	SEQUENCE
23	D2-1005	35/+	5'-GTCTTAGAACATGGAAGTTCGTGTGAACGATGGC-3'
24	D2-1141	25/+	5'-ACAACAGAAATCTGCTGCCAACAC-3'
25	D2-1211	25/+	5'-GCAAACTCTCCATGCTAGACAGAGG-3'
26	cD2-1211	25/-	5'-CCTCTCTCTACCATGGAGTGTTC-3'
27	cD2-1227	27/-	5'-CCACATCCATTTCCCATCCTCTCTCT-3'
28	D2-1261	30/+	5'-GGAAAGGGAGGCATTGTGACCTGTGCTATG-3'
29	D2-1416	28/+	5'-GGAAATCAAATAACACCACAGATTCC-3'
30	cD2-1503	34/-	5'-CTGCAGCAACACCATCTCATTGAAGTCGAGGCC-3'
31	D2-1510	25/+	5'-GACTTCAATGAGATGGTGTGCTGC-3'
32	cD2-1510	25/+	5'-GCAGCAGCACCATTCTCATTGAAGTC-3'
33	D2-1546	28/+	5'-AAGCTTGGCTGGTGACAGGCAATGGTT-3'
34	cD2-1567	27/-	5'-TGGTAACGGCAGGTCTAGGAACCATG-3'
35	D2-1777	23/+	5'-GGACATCTCAAGTCAGGCTGAG-3'
36	cD2-1777	23/+	5'-CTCAGCCTGCACTTGAGATGTCC-3'
37	D2-1863	27/+	5'-GAAGGAATAGCAGAAACACAACATGG-3'
38	cD2-1888	33/-	5'-CCCTTCATATTGTACTCTGAZAACATTTGTTC-3'
39	D2-2047	32/+	5'-CCTCCATTGGAGACAGCTACATCATATAGG-3'
40	cD2-2047	32/-	5'-CCTATGATGATGTAGCTGTCTCCGAATGGAGG-3'
41	D2-2170	29/+	5'-ATGGCCATTTTAGGTGACACAGCCTGGGA-3'
42	cD2-2200	27/-	5'-TGTAACACTCCTCCAGGGATCCAAA-3'
43	D2-2308	29/+	5'-CTCATAGGAGTCATTATCACATGGATAGG-3'
44	cD2-2504	35/-	5'-GGGGATTCTGGTTGGAACCTATATTGTTCTGTCC-3'
45	cD2-2622	30/-	5'-TGATTCAATTCTGGTGTATTGTTTCCAC-3'
46	D2-2702	25/+	5'-AAGGAATCATGCAGGCAGGAAAACG-3'
47	cD2-2864	22/-	5'-ACTTCCAGCGAGTTCCAAGCTC-3' A A
48	D2-2992	25/+	5'-AACAGAGCCGTCATGCCGATATGG-3'
49	cD2-3105	22/-	5'-TCCATTGCTCCAGAGGGTGTGT-3' G
50	D2-3236	25/+	5'-AGCTTGAGATCGACTTTGATTTCTG-3'

SEQ. ID	PRIMER	MR/SENSE	SEQUENCE
51	cD2-3410	22/-	5'-GGTCTGATTTCATCCCGTACC-3'
52	D2-3621	23/+	5'-GTCTTTAGAGACCTGGGAGAG-3'
53	cD2-3739	25/-	5'-GTTTCTCAAGAGTAGTCCAGCTGC-3' C
54	D2-3905	25/+	5'-ATCAATGGCAGTGACTATCATGGC-3'
55	cD2-4002	25/-	5'-TGTAAAGAGCAGTGGGAAACGGAC-3' A G
56	cD2-4060	25/-	5'-GATTGAGACCTTGTATCGTCAACGC-3'
57	D2-4214	25/+	5'-TGACAGGACCATTAGTGGCTGGAGG-3'
58	D2-4257	34/+	5'-CGTCTCACTGGAGATGGCCGATTGGAACTG-3'
59	cD2-4323	24/-	5'-GGCTGCTTCTGATATTCTAGCC-3' C
60	D2-4497	25/+	5'-OCTGTGGGAAGTGAAGAAACAACGG-3'
61	cD2-4557	30/-	5'-GCTCATCTTCCAGTTCAGCCTTTCCTATG-3'
62	cD2-4615	25/-	5'-CTCCGGCTCCCACTGAGATATCC-3' G G A
63	D2-4746	25/+	5'-CCTAATATCATATGGAGAGGCTGG-3'
64	D2-4792	25/+	5'-GAAGGAGAGAAATCCAGGTATTGG-3'
65	cD2-4922	25/-	5'-CTGTGACAAATGGAGATCCTGACG-3' T T
66	D2-4994	25/+	5'-GTGGAGCATATGTGAGTGCTATAGC-3'
67	D2-5124	25/+	5'-TCTGACTATGGCCGGAGGTATCTC-3'
68	D2-5173	25/+	5'-ACATTAATCTTGGCCCCACTAGAG-3'
69	cD2-5272	19/-	5'-CGATCTCCCGCCCGGTGTG-3' A
70	cD2-5318	25/-	5'-CTAACTGGTGATAGCAGCCTCATGG-3'
71	cD2-5656	27/-	5'-CCTACTGAGTGTATCATTCTTTCC-3'
72	cD2-5891	26/-	5'-TGGATTCTTCTATTTCTCCCTCTTC-3'
73	D2-5770	25/+	5'-TTCAGGCTGAGAGGTTATAGACC-3'
74	D2-6152	25/+	5'-TCTGGTTGGCTACAGAGTGGCAGC-3'
75	cD2-6252	27/-	5'-CCTTCTTTGTCCAGATTCCACTTCC-3' A

SEQ. ID	PRIMER	MER/SENSE	SEQUENCE
76	D2-6493	35/+	5'-GGGTACACCATGCTCTCAGTGAACCTGCGGAGAC-3'
77	cD2-6605	24/-	5'-TTCCAGGGTCATCTTCCCTATAC-3' G
78	cD2-6624	31/-	5'-GATGCTAGCGGTGATTATGCAGCACATTCC-3'
79	D2-6748	25/+	5'-AAACAGAGAACACCCCAAGACAACC-3'
80	cD2-6932	21/-	5'-CGGCATACAGCGTCCATGCTG-3'
81	D2-7055	25/+	5'-GTCTCGGGAAGGATGGCCATTGTC-3'
82	cD2-7195	25/-	5'-CTCTGGTGTCTTTTGTCTGAGTCC-3' A G G
83	cD2-7217	27/-	5'-CCGCGCTGCTCTTTTCTGAGCTTCTC-3'
84	D2-7378	25/+	5'-AGGACTACATGGGCTCTGTGTGAGG-3'
85	cD2-7515	19/-	5'-GAGAACTCCAGCTCCGGCC-3'
86	D2-7769	25/+	5'-AGAGAAACATGGTCACACCAGAAAG-3'
87	cD2-7885	22/-	5'-GTTCTTGTGTCTCTGCTCTCC-3'
88	D2-8165	25/+	5'-GGAAATATGGAGGAGCCTAGTGAGG-3'
89	cD2-8210	22/-	5'-ACCCAGTACATCTCATGTGTGG-3'
90	D2-8428	28/+	5'-GAGCATGAAACATCATGGCACTATGACC-3'
91	D2-8440	25/+	5'-TCATGGCACTATGACCAAGACCACC-3'
92	cD2-8529	22/-	5'-CAGTCTGACCACTCCGTTGACC-3' C A G
93	D2-8773	25/+	5'-AAGGTGAGAAGCAATGCAGCCTTGG-3'
94	D2-8798	29/+	5'-GGCCATATTCACTGATGAGAACAGTGG-3'
95	cD2-8865	22/-	5'-TCTTTCCCTGTCAACCAGCTCC-3' C T
96	D2-9046	25/+	5'-AATGAAGATCACTGGTTCTCCAGAG-3'
97	D2-9131	25/+	5'-AAGTGAGCAAGAAAGAGGGAGGAGC-3'
98	cD2-9166	22/-	5'-TGTCCTATCCTGCTGTGTATC-3' A G
99	cD2-9234	30/-	5'-GCTAGTTTCTTGTGTCTCCTTCCATGTGG-3'
100	D2-9344	25/+	5'-TCATATGAGAAAGAGACCAAGAGG-3'
101	cD2-9429	24/-	5'-ACTCCTTCTCCCTCCATCTGTCTG-3'

SEQ. ID	PRIMER	MER/SENSE	SEQUENCE
102	cD2-9438	27/-	5'-ATGCTTTTGAAGATTCTTCTCCCTCC-3' A C
103	cD2-9468	32/-	5'-GCACAGCGATTCTTCTGTGATTGTAGGTGC-3'
104	D2-9645	25/+	5'-ACAATGGGAACCTTCAGAGGATGG-3'
105	D2-9656.BAM	45/+	5'-TTATCACATT/GGATCC/TTCAAGAGGATGGA ATGATTGGACACAA-3' (5'-P111/BamHI/DEN-2 Sequence)
106	cD2-9668	28/-	5'-CAGAGGGCACTTGTGTCCATCATTC-3'
107	cD2-9779	21/-	5'-CTCCCTGGGAATTGGGCTC-3' T G
108	cD2-9796	28/-	5'-CGTCTCCCGCAAGACCACTGCTCC-3'
109	cD2-9796.XBA	44/-	5'-TTATCACCTA/TCTAGA/CGTCTCC GCAAGACCACTGCTCC-3'
110	cD2-9913	26/-	5'-GTTGGARCCCAATGTGATGGTACTGC-3'
111	D2-9937	25/+	5'-ACAGTGGACACACCTGTCCATAC-3'
112	cD2-9977	21/-	5'-GCATGTCTTCGGTGGTCATCC-3' T
113	cD2-10003	25/-	5'-CTTGAATCCACAACCTGTTCAGAC-3'
114	D2-10203	25/+	5'-ATACACAGATTACATGCCATCCATG-3'
115	cD2-10261	21/-	5'-TTTTCCTTCTACCACAGGAC-3' T A
116	D2-10289	25/-	5'-GAAACAAGGCTAGAAGTCAGGTCGG-3'
117	cD2-10337	23/-	5'-GACGGGGCTCACAGGTAGCATAG-3'
118	D2-10418	25/+	5'-GCTGTAGCTCCACCTGAGAAGGTG-3'
119	D2-10470	25/+	5'-GGAAGCTGTACGCATGGGTAGTGG-3'
120	cD2-10530	19/-	5'-GGGCCCCGTGTGTGCTGC-3' A
121	cD2-10687	59/-	5'-AGAACCTGTTGATTCAACAGCAACCATTTCTG-3'
122	cD2-10687.XBA	59/-	5'-TTATCACCTA/GCATGC/TCTAGA/ AGAACCTGTTGATTCAACAGCAACCATTTCTG-3' (5'-P111/SphI/XbaI/ 3'-End DEN-2 Sequence)
123	cD2-10687.X2	52/-	5'-TTATCACCTA/TCTAGA/ GAACTGTGATTCAACAGCAACCATTTCTG-3' (5'-P111/XbaI/ 3'-End DEN-2 Sequence)